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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,761	03/07/2005	Antti Tolli	59643.00582	5829

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EXAMINER

HUYNH, NAM TRUNG

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/526,761	Applicant(s) TOLLI ET AL.	
	Examiner Nam Huynh	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/7/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Willars (US 6,597,679).

- A. Regarding claim 1, Willars discloses a telecommunications system comprising:

- A Radio Network Core (RNC) or “network element” (figure 1, items 14, 18).
- A plurality of base stations, or “a plurality of communication means for serving a mobile station” (figure 1, items 11A-13A).
- A method of performing compressed mode measurements consisting of the following steps:
 - The RNC supervises a handover operation that is conducted upon initiation of, for example, measurements taken by the MS and/or the base stations (column 6, lines 63-67). Therefore disclosing the step of providing of information associated with the plurality of communication means (the second base station) to the network element.

- The RNC makes a determination or an "order" based on the measurements (columns 5-6 lines 67, 1-3).
- The MS makes compressed mode measurements based on the determination of the network (column 8, lines 56-67). The network comprises the RNC or "network element".

B. Regarding claim 2, Willars discloses two base stations, BS1 and BS2, in which handover is executed (column 8, lines 56-67).

C. Regarding claim 3, Willars shows in figure 6 two base stations (items 101, 110) that operate at different frequencies (f_1 , f_2).

D. Regarding claims 4-5, 7-8, Willars discloses that the mobile station communicates with a base station in CDMA or WCDMA mode (column 6, lines 56-57).

E. Regarding claim 6, Willars discloses that in compressed mode, the mobile station can perform measurements of other different frequencies and technologies (column 4, lines 31-39).

F. Regarding claim 9, Willars discloses that in a CDMA system, power controls require measurements of signal strength (column 2, lines 13-16) and that a mobile station performs a hard handover when the signal strength of a neighboring cell exceeds the signal strength of the current cell within a given threshold (column 2, lines 21-24).

G. Regarding claims 10-11, Willars discloses that in a dual mode terminal, the slots imposed in the WDCMA transmission may need to be synchronized with certain timing aspects of the other (dual receiver mode) system that the mobile station needs to

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measure on (for example, to decode BSIC (Base Station Identity Code) in GSM).

Organizing that synchronization is complex in the network but simplified in the mobile station (column 9, lines 51-59).

H. Regarding claims 16-17, Willars discloses in figure 3, network I/O (items 35, 37A-B) that allow the RNC to communicate with the base stations. The network I/O renders the common resource radio management because it provides a means for which information is provided between the RNC and the base stations connected to it. In figure 1, a connection between two RNC's (items 14, 18) is shown in which a corresponding MSC is connected. The MSC renders the common radio management server since it controls the RNC.

3. Claims 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Zadeh et al. (US 2004/0053630).

A. Regarding claim 19, Zadeh et al. discloses a method for adaptive thresholds for cell load sharing based upon current traffic conditions comprising:

- A Base Station Controller (BSC) monitors the traffic load in each cell (column 3, line 60). This step renders the collection of statistics of handovers for a particular cell and its surrounding cells.
- The Cell Load Sharing (CLS) allows thresholds for sharing load and accepting load per cell to change dynamically depending upon the current traffic condition in the network (column 3, lines 50-54). A detailed example is disclosed in columns 3-4, lines 60-67, 1-10) where a CLS percentage threshold, or "percentage of handovers", is changed depending of current traffic conditions.

This step renders the weighting of the cell load by the percentage of handovers and determining the threshold based on weighted cell loads.

B. Regarding claims 20-21, Zadeh et al. discloses that other means of determining the thresholds can be used, such as a formula or other algorithm (columns 4-5, lines 67, 1-2). It is inherently known in the art that a formula or algorithm may include multiplication and addition of values.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars (US 6,597,679) in view of Crichton et al. (US 5,722,072).

A. Regarding claim 12, Willars discloses a telecommunications system comprising:

- A Radio Network Core (RNC) or “network element” (figure 1, items 14, 18).
- A plurality of base stations, or “a plurality of communication means for serving a mobile station” (figure 1, items 11A-13A).
- A method of performing compressed mode measurements consisting of the following steps:
 - The RNC supervises a handover operation that is conducted upon initiation of, for example, measurements taken by the MS and/or the base stations (column 6, lines 63-67). Therefore disclosing the step of

providing of information associated with the plurality of communication means (the second base station) to the network element.

- The RNC makes a determination or an "order" based on the measurements (columns 5-6 lines 67, 1-3).
- The MS makes compressed mode measurements based on the determination of the network (column 8, lines 56-67). The network comprises the RNC or "network element".

Willars discloses that measurements are taken by the mobile station and does not explicitly disclose that a plurality of parameters comprising either a real time load, a non-real time load, a service priority weight, or a signal to interference ratio associated with the base station is provided to the RNC. Crichton et al. discloses a method for determining a handover for a mobile station including measuring the received signal parameters from a serving cell and a plurality of neighboring cells (abstract). One of these parameters could be absolute signal strength, or "load", of the candidate and serving cells (column 5, lines 19-25). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Crichton et al., in the compressed mode measurements of Willars, in order for the RNC to perform a handover operation. This added capability would allow the handover procedure to be more reliable while also minimizing the unnecessary handovers therefore allowing the usage of hardware resources within different radio access systems to be optimized.

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B. Regarding claim 13, Crichton et al. discloses that a timer can be used as a weighting factor in the ordering of candidate handover cells (column 5, lines 27-29).

C. Regarding claim 14, Crichton et al. discloses that an ordering of a priority of handover candidates is determined (column 4, lines 1-3).

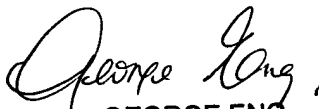
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NTH
3/28/06


GEORGE ENG
SUPERVISORY PATENT EXAMINER